

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-223955

(43)Date of publication of application : 17.08.2001

(51)Int.Cl. H04N 5/44
G11B 19/02
H04B 1/16
// H04N 7/20

(21)Application number : 2000-035640

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(22)Date of filing : 08.02.2000

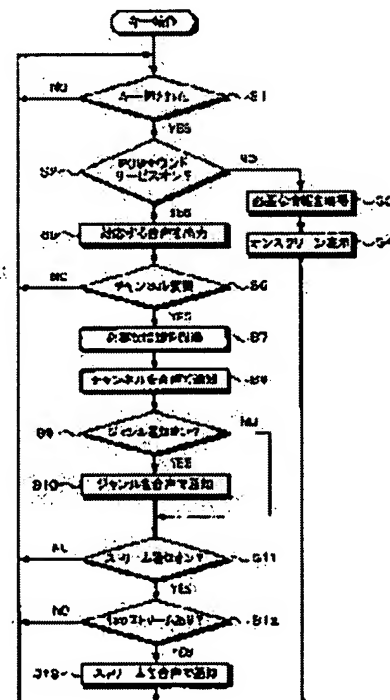
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(54) ELECTRONIC DEVICE AND ITS OPERATION SETTING METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an electronic device and its operation setting method for confirming and setting various kinds of setting states without hiding a screen in the middle of reception and allowing even a user who is not used to operating the device and a user having weak eyesight to confirm the setting states surely.

SOLUTION: A satellite broadcasting receiving tuner is provided with a display control circuit for on-screen-displaying information in the various kinds of setting states on the screen of a television receiver and a voice generation circuit for generating voice information corresponding to the information in the various kinds of setting states. Thus, inputting and a setting state are on-screen-displayed and guided by voice. Thus, video is prevented from becoming invisible due to an operation picture, and even a visually handicapped user or the user who is not used to operating the device is capable of operating simply. Furthermore, voice can be switched simply by plural languages. A user interface can be switched simply by information by voice and information by an on-screen picture.



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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]In this invention, it uses for a satellite broadcasting tuner and is related with the operation setting method of suitable electronic equipment and electronic equipment.

Therefore, it is involved in the thing which enabled it to check or set up various kinds of operating states especially using speech information.

[0002]

[Description of the Prior Art]Various kinds of operations can be performed in the system which consists of a satellite broadcasting tuner, video record / playback equipment, and a television receiver, looking at an onscreen display. For example, the channel received now, various kinds of established states of a satellite broadcasting tuner, the information on the apparatus connected, etc. are displayed on an onscreen screen. [the information on a genre,] By seeing the information on these onscreen screens, the user can check or change the present established state.

[0003]The apparatus of the whole system can be operated in one, looking at an onscreen screen by attaching the infrared ray generator called AV mouse to a satellite broadcasting tuner. Thereby, timed recording can be made, for example, looking at an onscreen screen.

[0004]That is, when setting up timed recording, setup information, a manual operation button, etc. are projected on the onscreen screen of a television receiver. In satellite broadcasting, program information is sent by EPG (Electronics Program Guide), and when making timed recording, an onscreen indication of the screen of this EPG is given. A recording input is given using a remote controller, looking at this onscreen screen.

[0005]Thus, if picture recording setting is inputted looking at an EPG screen, and it becomes a reserved period, reception of a desired program will be started by a satellite broadcasting tuner, and the infrared command signal for setting video record / playback equipment as a recording state from AV mouse is outputted. This infrared command signal is received by the light sensing portion of video record / playback equipment, and video record / playback equipment is set as a recording state. Thereby, the desired video signal and audio signal of a reception program are sent to video record / playback equipment from a satellite broadcasting tuner, and the program is recorded with video record / playback equipment.

[0006]

[Problem(s) to be Solved by the Invention]Thus, in the system which consists of a satellite broadcasting tuner, video record / playback equipment, and a television receiver. An onscreen indication of the various information being given on the screen of a television receiver, and looking at this onscreen display, various kinds of established states can be checked, or operation can be made to set up using a remote controller.

[0007]However, since an onscreen screen is superimposed and displayed on the receiving screen of

television, when an onscreen screen is displayed, the screen under reception is hidden in an onscreen screen, and there is a problem of stopping being visible.

[0008] There are a user unfamiliar to operation and a user with weak eyesight among users. For such a user, the operation checked or set up cannot do the present operating state easily by operation by an onscreen screen. That operation was set up and in order to tell warning, there are some which generate a beep sound, but a beep sound is not enough for checking various kinds of established states, or making operation set up.

[0009] Therefore, the purpose of this invention is to provide the operation setting method of electronic equipment and electronic equipment out of which it came to check or set up various kinds of established states, without hiding the screen under reception.

[0010] Other purposes of this invention are for a user unfamiliar to operation and a user with weak eyesight to also provide the operation setting method of electronic equipment and electronic equipment carried out as [check / an established state / certainly].

[0011]

[Means for Solving the Problem] Electronic equipment this invention is characterized by that comprises the following and which was made like.

An onscreen screen-display means to indicate the information on various kinds of established states by onscreen on a screen of a television receiver.

An input means which performs various kinds of setting out based on an onscreen display on a television screen.

A speech information creating means which generates speech information corresponding to information on various kinds of established states.

A control means which an onscreen screen corresponding to an input will be displayed based on an input if an input is performed by input means, and is controlled to generate information corresponding to an input from a sound generating means.

[0012] Various kinds of established states are outputted by sound. For this reason, an image can be prevented from disappearing with an operation screen, and an inconvenient user of eyes and a user unfamiliar to operation can also operate it easily. In this invention, a sound can be easily changed in two or more languages. A user interface can be easily changed to information with a sound with an onscreen screen using information.

[0013]

[Embodiment of the Invention] Hereafter, this embodiment of the invention is described with reference to drawings. Drawing 1 shows the satellite broadcasting system which can apply this invention. As for 1, in drawing 1, a television receiver and 3 are video record / playback equipment a satellite broadcasting tuner and 2.

[0014] The satellite broadcasting tuner 1 decodes the input signal of CS (Communication Satellite) digital satellite broadcasting, for example, forms the video signal and audio signal of NTSC system. The AV mouse 4 is attached to the satellite broadcasting tuner 1. This AV mouse 4 generates an infrared command signal, and enables it to control video record / playback equipment 3 by the satellite broadcasting tuner 1 with this infrared command signal other apparatus and here.

[0015] The antenna terminal of the satellite broadcasting tuner 1 is connected to the low noise converter 7 attached to the parabolic antenna 6 via the cable 5. The satellite broadcasting tuner 1 and the television receiver 2 are connected via the cable 8. The satellite broadcasting tuner 1, and the video record / playback equipment 3 are connected via the cable 9.

[0016] The electric wave from a satellite is transmitted with 12 GHz bands, for example. It is received by the parabolic antenna 6, and the electric wave from this satellite is the low noise converter 7 attached to the parabolic antenna 6, and is changed into the signal of 1 GHz band, for example. The output of the low

noise converter 7 is supplied to the antenna terminal of the satellite broadcasting tuner 1 via the cable 5. [0017]With the satellite broadcasting tuner 1, the signal of a desired subcarrier is chosen out of an input signal, and the transport stream of MPEG(Moving Picture Coding Expert Group) 2 gets over. Out of this transport stream, the desired video packet and packetized voice of a program are extracted, and decoding of this video packet and a packetized voice is performed, for example, the video signal and audio signal of NTSC system are decoded.

[0018]The video signal and audio signal from the satellite broadcasting tuner 1 are supplied to the television receiver 2 via the cable 8. With the television receiver 2, while the receiving screen of a desired program is projected, the sound is outputted.

[0019]When recording satellite broadcasting, video record / playback equipment 3 is set as a recording state, and the video signal and audio signal from the satellite broadcasting tuner 1 are supplied to video record / playback equipment 3 via the cable 9. With video record / playback equipment 3, the desired video signal and audio signal of a program are recorded on recording media, such as a tape. If video record / playback equipment 3 is set as a reproduction state, a video signal and an audio signal will be played from the recording medium with which video record / playback equipment 3 is equipped, That sound is outputted, while this video signal and audio signal are sent to the satellite broadcasting tuner 1 via the cable 9, the television receiver 2 is supplied via the cable 8 and that reproduction screen is projected with the television receiver 2.

[0020]The remote controller 10 can perform operation of the satellite broadcasting tuner 1. The onscreen display on the screen of the television receiver 2 can perform various kinds of setting out, and voice service can perform so that it may explain later. Operation of video record / playback equipment 3 can be set up by operation of the remote controller 10 by attaching the AV mouse 4 to the satellite broadcasting tuner 1.

[0021]Drawing 2 shows the composition of the satellite broadcasting tuner 1. In drawing 2, it is received by the parabolic antenna 6, and the electric wave of the digital satellite broadcasting sent via a satellite by the electric wave of 12 GHz bands is the low noise converter 7 attached to the parabolic antenna 6, and is changed into the signal of 1 GHz band. The output of this low noise converter 7 is supplied to the antenna terminal 21 of the satellite broadcasting tuner 1 via the cable 5.

[0022]The signal from the antenna terminal 21 is supplied to the tuner circuit 22. The signal of predetermined carrier frequency is chosen out of an input signal by the tuner circuit 22, and this signal is changed into an intermediate frequency signal. The control signal for frequency setting is supplied to the tuner circuit 22 from the controller 20. Received frequency is set up based on this control signal.

[0023]The output of the tuner circuit 22 is supplied to the demodulator circuit 23. Recovery processing of QPSK (Quadrature Phase Shift Keying) is performed by the demodulator circuit 23. The output of the demodulator circuit 23 is supplied to the error correction circuit 24. Error correction processing is performed from the error correction circuit 24.

[0024]The output of the error correction circuit 24 is supplied to the descrambler 25. The ECM (Entitlement Control Message) data and EMM (Entitlement Management Message) data which were received are supplied to the descrambler 25, and. The key data for descrambling memorized by IC card 27 with which IC card slot 26 is equipped is supplied.

[0025]The descrambler 25 performs descrambling of an MPEG transport stream using this ECM data and EMM data that were received, and the key data of IC card 27. The transport stream of descrambled MPEG 2 is sent to the demultiplexer 28.

[0026]The demultiplexer 28 separates a desired packet out of the stream from the descrambler 25 based on the instructions from the controller 20. The packet identifier (PID) is described by the transmission packet at the header unit. In the demultiplexer 28, the video packet of a desired program and a packetized voice, and PSI (Program Specific INformation) are extracted based on this PID. The video packet of the program of this request is sent to the video processing circuit 29, and a packetized voice is sent to the

audio processing circuit 30. PSI is sent to the controller 20.

[0027]The video processing circuit 29 receives the packet of the video signal from the demultiplexer 28, decodes an MPEG2 system, and forms a video data. This video data is supplied to NTSC encoder 31. By the NTSC conversion circuit 31, the video data decoded in the video processing circuit 29 is changed into the video signal of NTSC system.

[0028]The display control circuit 32 and the copy prohibition control circuit 33 are formed to NTSC encoder 31. The display control circuit 32 forms various onscreen screens based on the control signal from the controller 20. The copy prohibition control circuit 33 generates a copy prohibition control signal if needed, in order to protect the copyright of an image based on information (EMM/ECM) required for the limited reception of PSI. The output of the NTSC conversion circuit 31 is supplied to the video output terminal 34. The composite video signal of NTSC system is outputted from the video output terminal 34.

[0029]The audio processing circuit 30 receives the packetized voice from the demultiplexer 28, performs voice decoding of an MPEG system, and forms the audio information before a data compression. The voice generation circuit 35 is formed to the audio processing circuit 30. This voice generation circuit 35 is for offering service which outputs various kinds of established states with a sound, when PCM sound service is set as one explain later. After the output of the audio processing circuit 30 is changed into an analog audio signal by D/A converter 36, it is outputted from the audio output terminal 37.

[0030]The input for operating the satellite broadcasting tuner 1 is performed by the input key 41, and it is performed by the remote controller 10. Light is received by the light sensing portion 42, and the infrared command signal from the remote controller 10 is sent to the controller 20. The AV mouse 4 is attached to the controller 20. With this AV mouse 4, an infrared command signal is outputted to other apparatus. Thereby, the remote controller 10 of the satellite broadcasting tuner 1 is operated, and other apparatus can be controlled.

[0031]The established state of the satellite broadcasting tuner 1 is displayed on the indicator 43 based on the setup information from the controller 20, and an onscreen indication of it can be given on a television screen by the display control circuit 32. When PCM sound service is set as one by the voice generation circuit 35, it can be made to output with a sound. The modem 44 is formed and accounting information is remitted via a telephone line by the modem 44.

[0032]Drawing 3 shows an onscreen screen when performing various kinds of setting out. This screen is called the EZ panel. As shown in drawing 3 on the EZ panel, the buttons 51-60 are arranged and the superimposed display of this is carried out on the screen of the television receiver 2. These buttons 51-60 are operating the remote controller 10, and are set up.

[0033]That is, the joy stick for moving cursor to the remote controller 10 all around, and an arrow key and a determination button are provided. Operation of a joy stick and an arrow key will move the button chosen among the buttons 51-60 according to this. The button chosen among the buttons 51-60 is shown by when it becomes bright or a color changes. Thus, a desired button is chosen out of the buttons 51-60 by the joy stick or an arrow key, and determination button **** and setting out of the button are made.

[0034]In drawing 3, setting out of the present program button 51 will display EPG about the program received now. Setting out of the week program button 52 will display EPG which shows a week program schedule. Setting out of the liking list button 53 will display the list of the liking programs which the user set up. Setting out of the request-to-print-out-files list button 54 will display the list of the request-to-print-out-files programs which the user reserved. Setting out of the iLINK button 55 will display a list of the apparatus connected to the interface. Shortly after the recording button 56 is set up immediately, video record / playback equipment is set as a recording state, and recording is started. Shortly after the sound recording button 57 is set up immediately, audio record / playback equipment is set as a sound recording state, and sound recording is started. Accounting information will be displayed if the button 58 is set up how much now. Setting out of the sound button 59 will display the setting screen of PCM voice service. If the returning button 60 is set up, it will return to a former screen.

[0035]Drawing 4 shows the onscreen screen which will be cut if PCM voice service is set up. In the EZ panel shown in drawing 3, setting out of the sound button 59 will display the onscreen screen for PCM voice services as shown in drawing 4.

[0036]In the onscreen screen for setting up PCM voice service. The sound ON-and-OFF setting buttons 61A and 61B, the Jean Luong / OFF setting buttons 62A and 62B, the language setting buttons 63A, 63B, and 63C, the rate change buttons 64A and 64B of transparence of the EZ panel, and the ON-and-OFF buttons 65A and 65B of other streams are displayed. These setting buttons are set up by the remote controller 10.

[0037]A sound is set as one with the sound ON-and-OFF setting buttons 61A and 61B, A genre is set as one with the ON-and-OFF setting buttons 62A and 62B of a genre, When it is set as Japanese with the setting buttons 63A, 63B, and 63C of language and is set as one with the ON-and-OFF buttons 65A and 65B of other streams, receiving CHANRU, for example by 250 channels. the case where other streams have a genre by news -- " -- alike -- ***** -- ***** and a channel -- news -- there are other streams in this program -- please look at program description -- " -- the voice message to say is outputted.

[0038]The superimposed display of the EZ panel shown in drawing 3 with the rate change buttons 64A and 64B of transparence of the EZ panel when it was set as the usual transmissivity is carried out on a screen, a lower screen disappears, and when it is set as translucent transmissivity, a lower screen is transparent and it comes to appear. And if it is set as sound one with the ON-and-OFF setting buttons 61A and 61B of the sound while displaying the EZ panel, If the sound corresponding to the button chosen among the buttons 51-60 on the EZ panel is outputted and the button is moved, the sound of the button of a place which is moving will be outputted.

[0039]Thus, in the system to which this invention was applied. When various kinds of operating states can be checked by onscreen display, operation setting can be performed and PCM voice service is turned on, using a sound, various kinds of operating states can be checked, or operation setting can be performed.

[0040]Drawing 5 is a flow chart which shows the processing at the time of setting up an operating state using a sound. When PCM voice service is come by off, an operating state can be checked by onscreen display, and when PCM voice service is turned on, it enables it to check an operating state by voice service in the example of drawing 5.

[0041]In drawing 5, if it is judged whether the key of the remote controller 10 was pressed (Step S1) and a key is pressed, it will be judged whether PCM sound service is turned on (Step S2). This PCM sound service is set up with the sound ON-and-OFF setting buttons 61A and 61B.in drawing 4.

[0042]When PCM service is come by off, the required information corresponding to the pressed key is acquired (Step S3), an onscreen display is made (step S4), and a return is carried out to Step S1. From this onscreen display, an onscreen indication of the information on the channel etc. which are set up is given on the screen of the television receiver 2, and the user can know the setup information of a channel etc. by this onscreen display.

[0043]At Step S2, when PCM sound service is turned on, the sound corresponding to the pressed key is outputted (Step S5). And it is judged whether the channel was changed or not (Step S6). If it is judged that the channel was changed, required information will be acquired (Step S7) and the selected channel will be notified with a sound (Step S8). If it is judged that the channel is not changed, a return will be carried out to Step S1.

[0044]At Step S8, if the selected channel is notified with a sound, it will be judged whether the notice of a genre is turned on (step S9). The notice of a genre is set up with the ON-and-OFF setting buttons 62A and 62B of the genre in drawing 4. If the notice of a genre is come by off, it will go to Step S11.

[0045]It is judged whether by step S9, if the notice of a genre is turned on, a genre is notified with a sound (Step S10), and the notice of a stream is turned on (Step S11). The notice of a stream is set up with the ON-and-OFF buttons 65A and 65B of other streams in drawing 4.

[0046]If the notice of a stream is turned [Step S11] on, when it is judged whether other streams exist (Step S12) and other streams exist, When a stream is notified with a sound (Step S13) and other streams cannot be found, a return is carried out to Step S1. At Step S11, if the notice of a stream is come by off, a return will be carried out to Step S1.

[0047]Thus, in the example shown in drawing 5, when PCM voice service is come by off. When various kinds of operating states can be checked by onscreen display and PCM voice service is turned on, It can do [checking various kinds of operating states using a sound, or], and the user interface depended onscreen and a user interface with a sound can be changed easily. In this case, an image can be prevented from an onscreen screen no longer being projected and hiding with an onscreen screen if PCM voice service is used.

[0048]Drawing 6 is a flow chart which shows other examples of the processing at the time of setting up an operating state using a sound. When PCM voice service is come by off, an operating state can be checked by onscreen display, and it enables it to check an operating state by voice service in this example.

[0049]In drawing 6, if it is judged whether the key of the remote controller 10 was pressed (Step S21) and a key is pressed, the required information corresponding to the pressed key will be acquired (Step S22), and processing by onscreen display will be made (Step S23). From this onscreen display, an onscreen indication of the information on the channel etc. which are set up is given on the screen of the television receiver 2, and the user can know the setup information of a channel etc. by this onscreen display.

[0050]And it is judged whether PCM sound service is turned on (Step S24). When PCM sound service is turned on, the sound corresponding to the pressed key is outputted (Step S25). When PCM sound service is come by off, a return is carried out to Step S21.

[0051]It will be judged whether the channel was changed or not if the sound corresponding to the pressed key is outputted at Step S25 (Step S26). If it is judged that the channel was changed, required information will be acquired (Step S27) and the selected channel will be notified with a sound (Step S28). If it is judged that the channel is not changed, a return will be carried out to Step S21.

[0052]At Step S28, if the selected channel is notified with a sound, it will be judged whether the notice of a genre is turned on (Step S29). If the notice of a genre is turned on, a genre will be notified with a sound (Step S30). When the notice of a genre is OFF, it goes to Step S31.

[0053]If a genre is notified by the sound at Step S30, it will be judged whether the notice of a stream is turned on (Step S31). If the notice of a stream is turned on, when it is judged whether other streams exist (Step S32) and other streams exist, When a stream is notified with a sound (Step S33) and other streams do not exist, a return is carried out to Step S21. When the notice of a stream is OFF at Step S31, a return is carried out to Step S21.

[0054]Thus, in the example shown in drawing 6, when PCM voice service is come by off. It can do [checking various kinds of operating states by onscreen display, being able to check various kinds of operating states by onscreen display, and checking various kinds of operating states using a sound when it can do and PCM voice service is turned on, or]. In this case, since the user can acquire information with a sound with the information by onscreen display, also in a visually handicapped user or a user unfamiliar to operation, handling becomes easy.

[0055]Drawing 7 shows the operation in the case of displaying the EZ panel (drawing 3). In drawing 7, if the EZ panel is started (Step S31), the judgment of transmissivity will be made (Step S32). The transmissivity of the EZ panel is set up with the rate change buttons 64A and 64B of transparence in drawing 4.

[0056]Here, if set as the usual transmissivity, the EZ panel of the usual transmissivity will be displayed (Step S33). If set up translucent, the EZ panel of translucent transmissivity will be displayed (Step S34). And the button chosen among the buttons 51-60 on the EZ panel is displayed (Step S35). And it is judged whether PCM sound service is turned on (Step S36). When PCM sound service is one, the sound corresponding to the button chosen among the buttons 51-60 on the EZ panel is outputted (Step S37), and it goes to Step S38. When PCM sound service is OFF, it goes to Step S38 as it is.

[0057]It is judged whether there was any input for moving a button at Step S38 (Step S38). If there is an input for moving a button, it returns to Step S35 and the button according to the moved button is displayed, and when PCM sound service is one, the sound according to the moved button will be further outputted at Step S37. Can move by this the button chosen among the buttons 51-60 on the EZ panel, and. If it is judged that there is no input for moving a button at Step S38 to which the sound corresponding to the button is outputted, it will be judged whether the decision key was pressed (Step S39). If the decision key is pressed, the function specified with the button is performed (Step S40) and the decision key is not pressed, a return is carried out to Step S38.

[0058]The buttons 51-60 on the EZ panel are moved, the button selected at Step S35 is expressed as Steps S35-S38 at this time, and when PCS service is one, the sound selected at Step S37 is outputted further. Thus, a user chooses a desired button from the buttons 51-60 on the EZ panel. And selection of a desired button will press the decision key. A push on a decision key will perform the function at Step S40.

[0059]Thus, in the system to which this invention was applied, when PCM sound service is turned on, various kinds of established states are outputted by the sound. For this reason, it is lost that an image disappears with an operation screen, and the inconvenient user of eyes and a user unfamiliar to operation can also operate it easily.

[0060]Although the above-mentioned example explained the system which consists of a satellite broadcasting tuner, video record / playback equipment, and a television receiver, this invention is not limited to such composition. It is applicable to an operation screen, a music distribution system, a terminal, etc. of a computer.

[0061]

[Effect of the Invention]According to this invention, for an outputting [various kinds of established states / by the sound] reason, it is lost that an image disappears with an operation screen. Since it is outputted by the sound, the inconvenient user of eyes and a user unfamiliar to operation can also operate it easily. In this invention, a sound can be easily changed in two or more languages. A user interface can be easily changed to information with an onscreen screen by speech information using information.

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is a block diagram of an example of the receiving system which can apply this invention.

[Drawing 2] It is a block diagram of an example of the satellite broadcasting tuner with which this invention was applied.

[Drawing 3] It is an approximate line figure used for the display in the satellite broadcasting tuner with which this invention was applied at explanation.

[Drawing 4] It is an approximate line figure used for explanation of the satellite broadcasting tuner with which this invention was applied.

[Drawing 5] It is an approximate line figure used for explanation of the satellite broadcasting tuner with which this invention was applied.

[Drawing 6] It is an approximate line figure used for explanation of the satellite broadcasting tuner with which this invention was applied.

[Drawing 7] It is an approximate line figure used for explanation of the satellite broadcasting tuner with which this invention was applied.

[Description of Notations]

1 [... AV mouse, 10 / ... Remote controller] ... A satellite broadcasting tuner, 2 ... A television receiver, 3 ... Video record / playback equipment, 4

[Translation done.]

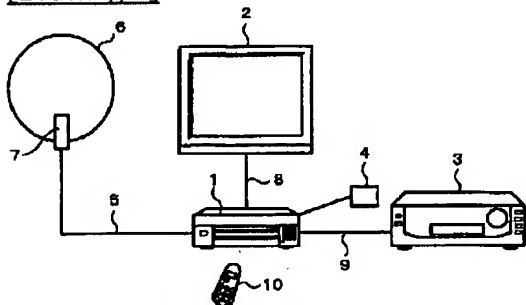
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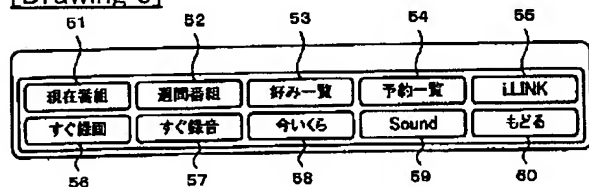
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DRAWINGS

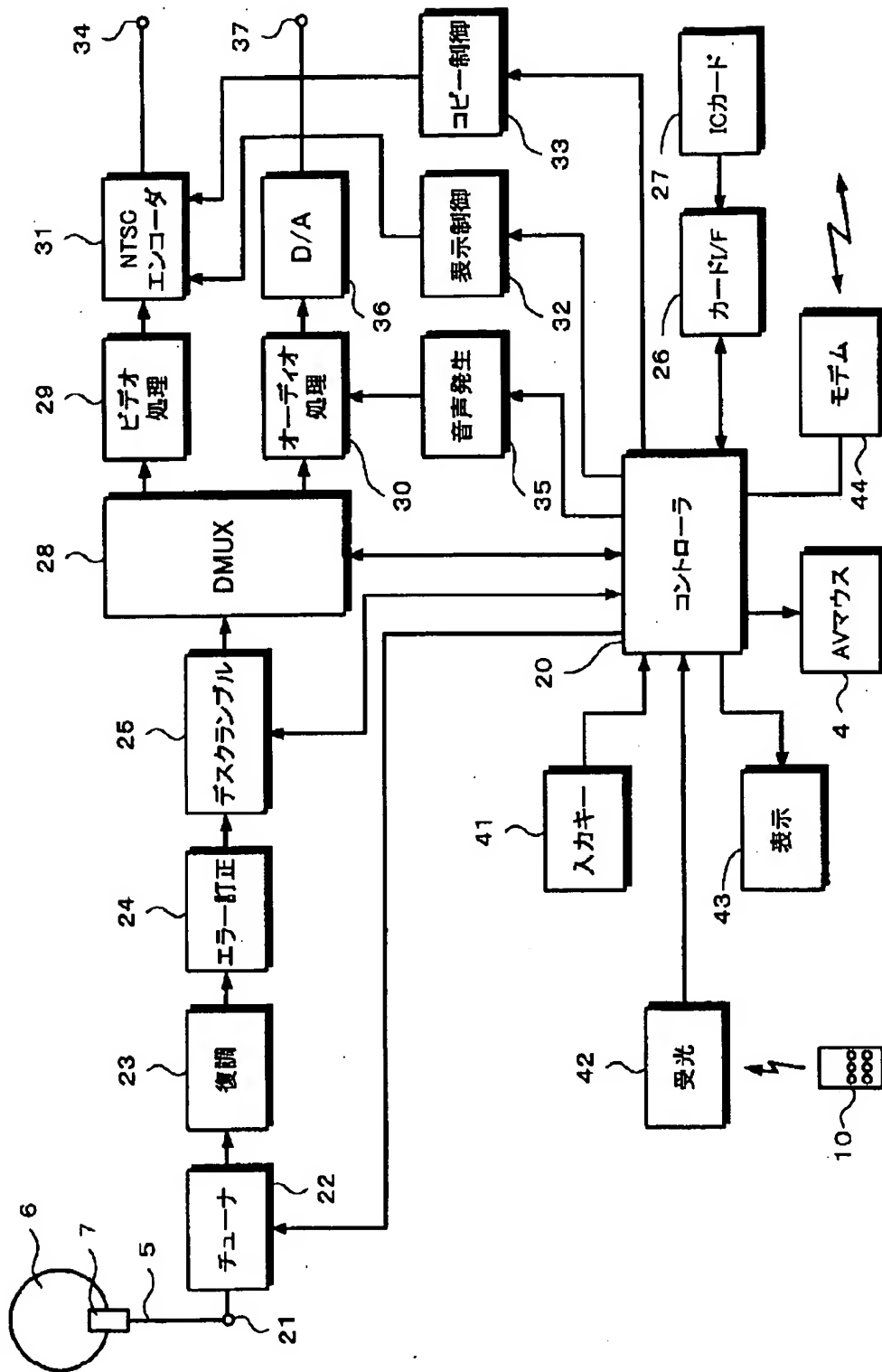
[Drawing 1]



[Drawing 3]



[Drawing 2]



PCM音声サービス設定

61B

Sound On/Off

61A

☒ On ☐ Off

64A

ExPanelの透過率切替

64B

☐ 通常 ☒ 半透明

62A

Genre On/Off

62B

☐ On ☒ Off

65B

Other Stream On/Off

65A

☐ On ☒ Off

効果音の種類

63A

☒ Japanese

未定

63B

☐ English

未定

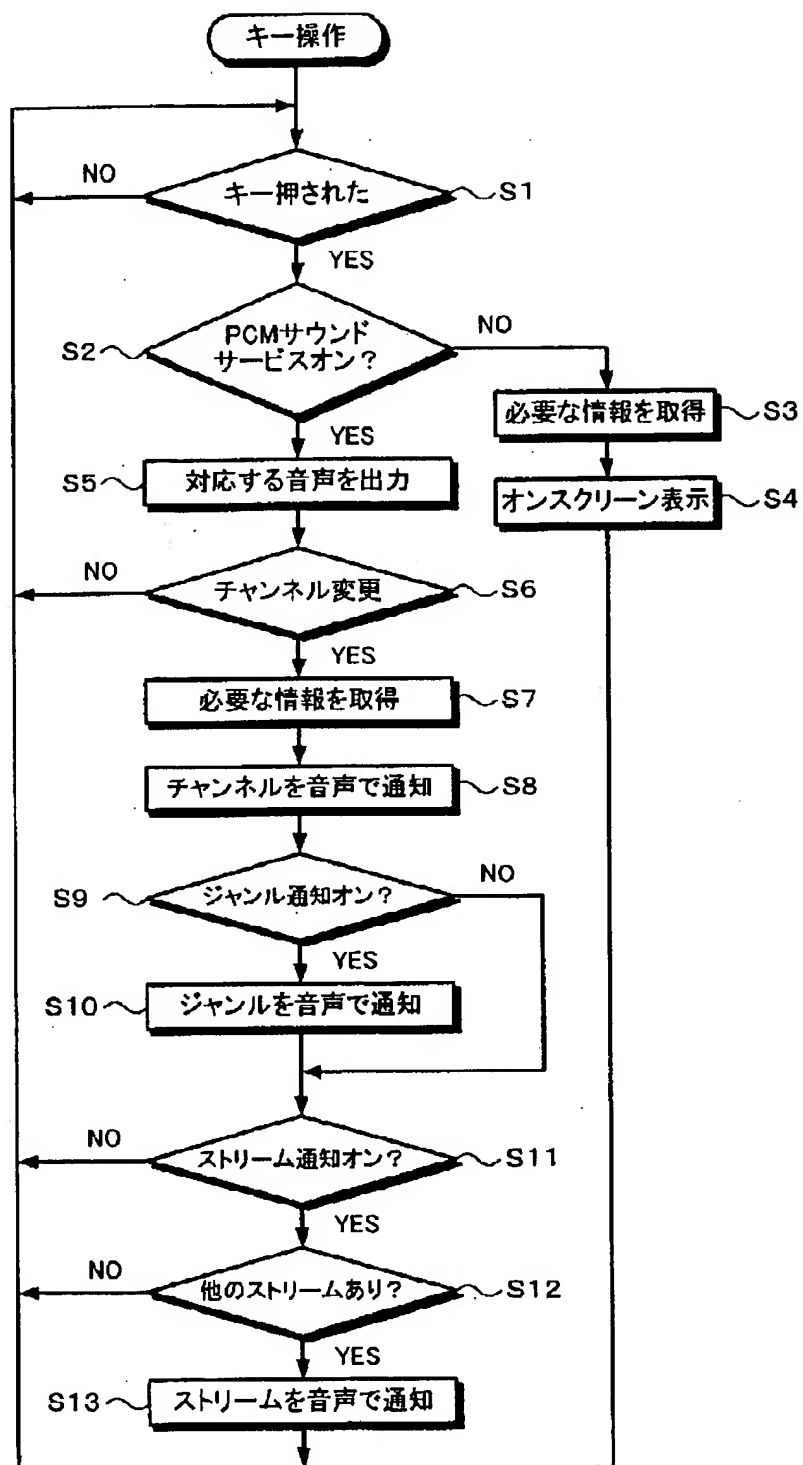
63C

☐ Piano

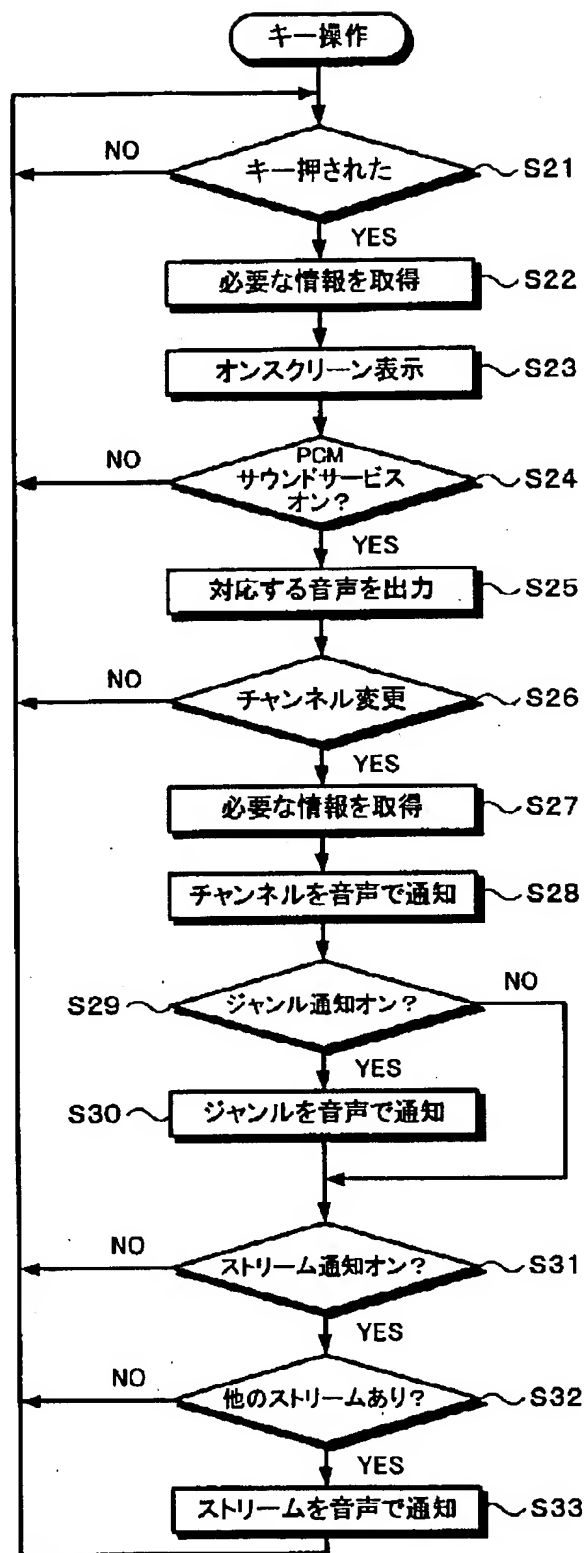
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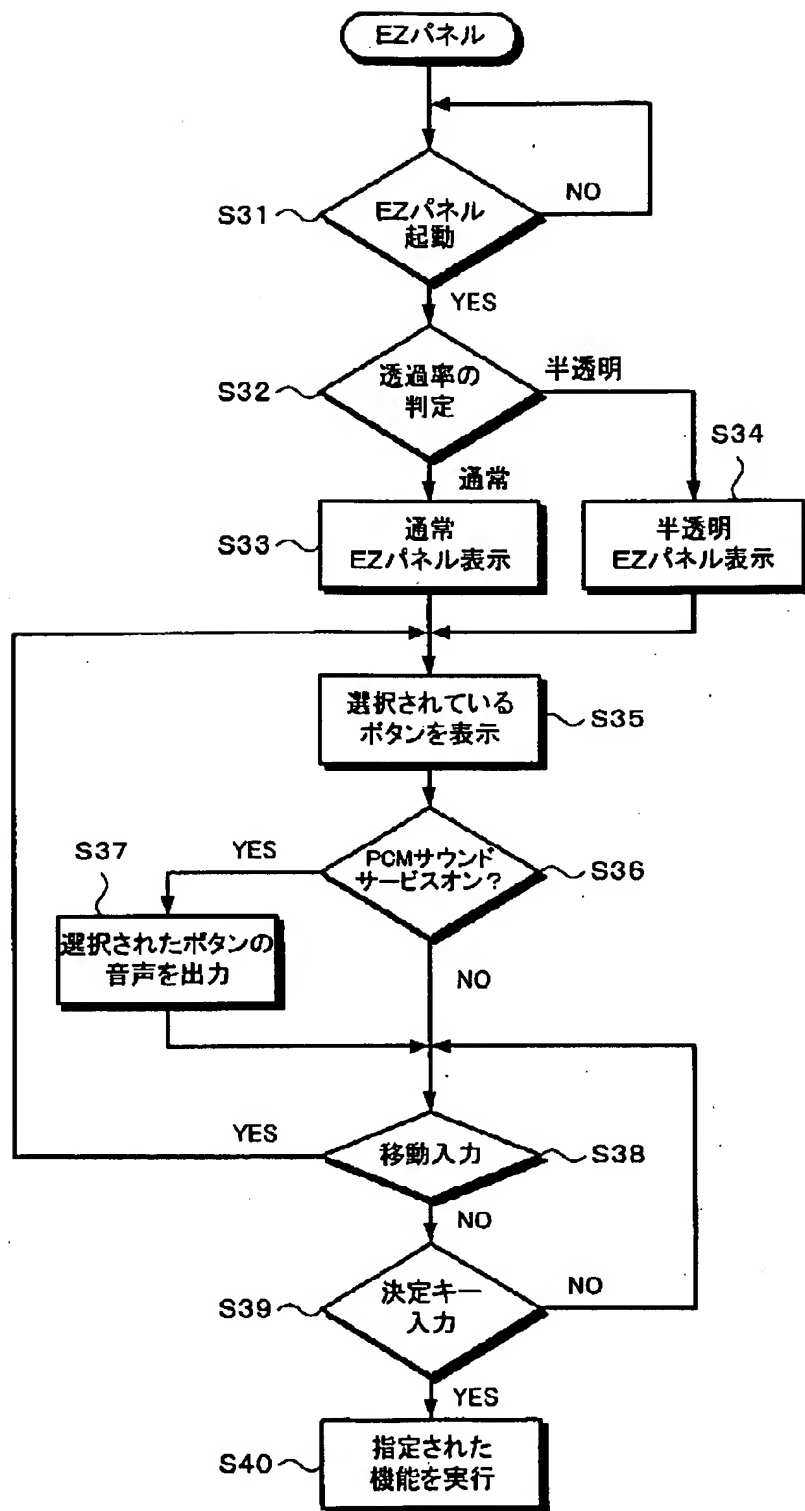
[Drawing 5]



[Drawing 6]



[Drawing 7]



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CLAIMS

[Claim(s)]

[Claim 1]Electronic equipment made like, comprising:

An onscreen screen-display means to indicate the screen corresponding to various kinds of established states and setting-out items by onscreen.

A sound generating means which generates speech information corresponding to an established state and a setting-out item of the above-mentioned various kinds.

A control means controlled to display the above-mentioned onscreen screen, to be able to perform a check of various kinds of established states, and an input of a setting-out item, and to make the above-mentioned speech information output and to be able to perform a check of various kinds of established states, and an input of a setting-out item.

[Claim 2]The electronic equipment according to claim 1 which enabled it to perform selectively a check of various kinds of established states and an input of a setting-out item which are performed by displaying the above-mentioned onscreen screen, and a check of various kinds of established states and an input of a setting-out item which are performed by making the above-mentioned speech information output.

[Claim 3]The electronic equipment according to claim 1 which enabled it to perform simultaneously a check of various kinds of established states and an input of a setting-out item which are performed by displaying the above-mentioned onscreen screen, and a check of various kinds of established states and an input of a setting-out item which are performed by making the above-mentioned speech information output.

[Claim 4]The electronic equipment according to claim 1 which enabled it to set up transmissivity of the above-mentioned onscreen screen.

[Claim 5]The electronic equipment according to claim 1 by which the above-mentioned speech information enabled it to change two or more languages.

[Claim 6]Display an onscreen screen for a screen corresponding to various kinds of established states and setting-out items, and perform a check of various kinds of established states, and an input of a setting-out item, and. An operation setting method of electronic equipment of making speech information corresponding to an established state and a setting-out item of the above-mentioned various kinds outputting, and having been made to perform a check of various kinds of established states, and an input of a setting-out item.

[Claim 7]An operation setting method of the electronic equipment according to claim 6 of having enabled it to perform selectively a check of various kinds of established states and an input of a setting-out item which are performed by displaying the above-mentioned onscreen screen, and a check of various kinds of established states and an input of a setting-out item which are performed by making the above-mentioned speech information outputting.

[Claim 8]An operation setting method of the electronic equipment according to claim 6 of having enabled it to perform simultaneously a check of various kinds of established states and an input of a setting-out item which are performed by displaying the above-mentioned onscreen screen, and a check of various kinds of established states and an input of a setting-out item which are performed by making the above-mentioned speech information outputting.

[Claim 9]An operation setting method of the electronic equipment according to claim 6 of having enabled it to set up transmissivity of the above-mentioned onscreen screen.

[Claim 10]An operation setting method of the electronic equipment according to claim 6 that the above-mentioned speech information enabled it to change two or more languages.

[Translation done.]